

ABSTRACT

The present invention is to provide a multipotent cell wherein the sufficient amount necessary can be stably and conveniently supplied with a minimum invasion, that will not cause rejection at the time of cell transplantation, that has a potential to differentiate into various cells such as mesenchymal cells including bone, cartilage, skeletal muscle and fat, endothelial cells, myocardial cells, neurons, mesenchymal cells, myocardial cells, endothelial cells, neurons induced to differentiate from the multipotent cell, and a therapeutic agent/treating method comprising these as active ingredient. Peripheral blood mononuclear cells (PMBC) are cultured on fibronectin-coated plastic plates for 7 to 10 days. The generating cell population with a fibroblast-like morphology is derived from circulating CD14⁺ monocyte, with a unique phenotype of CD14⁺CD45⁺CD34⁺ type I collagen⁺. These cells have a potential to differentiate into mesenchymal cells including bone, cartilage, skeletal muscle and fat, endothelial cells, myocardial cells, and neurons under particular culture conditions.